



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,128	11/18/2003	Andreas Gerken	GERKEN ET AL.-1	7013
25889	7590	07/11/2007	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			MUSSEY, BARBARA J	
			ART UNIT	PAPER NUMBER
			1733	
			MAIL DATE	DELIVERY MODE
			07/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/716,128
Filing Date: November 18, 2003
Appellant(s): GERKEN ET AL.

MAILED
JUL 11 2007
GROUP 1700

Frederick Dorchak
Elizabeth Collard Richter
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/26/07 appealing from the Office action
mailed 9/25/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct. It is noted that all the statements after the listing of the grounds of rejection are a re-iteration of examiner's grounds of rejection and do not constitute arguments.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Art Unit: 1733

4,925,719	STANELUIS et al.	5-1990
5,662,996	JOURQUIN et al.	9-1997
5,938,993	GREENE	8-1999
WO02/26461A2	MALFLIET et al.	4-2002
WO01/26883A1	DEMOE et al.	4-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 7, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ericson(U.S. Patent 3,259,673) in view of Malfliet et al. and DeMoe et al.(WO 01/26883A1)

Ericson discloses a method of forming a molded article by spraying a film coating into a mold, hardening it to form a film, closing the mold, back foaming the mold with the foam dimensions defined by the film and the top of the mold under heat, and removing the article from the mold.(Figures 1-4; Col. 6, ll. 35-50; Col. 7, ll. 50-60; Col. 8, ll. 71-75; Col. 9, ll. 7-9) Since the foam is a urethane foam mixture, it is considered to contain reactive foaming ingredients.(Col. 9, ll. 43-45) The reference does not disclose inserting an elastic skin having a graining on the inside and applying the film to it, and after removal from the mold, stripping the elastic skin away. Malfliet et al. discloses a method of forming a molded body by inserting an elastic skin(6) having a graining(7) on the inside into a receiving mold bottom(2,3,4), the edges of which stabilize the elastic skin(Figure 1), applying a liquid polymer to the inside of the elastic skin which is hardened to form a molded skin(9), back foaming the mold by introducing a foamable

Art Unit: 1733

mixture into the mold, removing the elastic skin(6), molded skin(9), and foamed body(12) from the mold as a unit attached to the tool top(Figure 11), and stripping the elastic skin from the molded skin so that graining remains on the molded skin.(Figure 7; Abstract; Pg. 4, ll. 2-4; Pg. 6, ll. 12-13, 26-Pg. 7, ll. 1, 8-11; Pg. 10, ll. 13-20) This process prevents the mold seams from being present on the final article.(Pg. 2, ll. 24-Pg. 3, ll. 2) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an elastic skin with a grain pattern rather than give the film the pattern of the mold surface since this would prevent the mold seams from being present in the final product. (Pg. 2, ll. 24- Pg. 3, ll. 2)

The reference does not disclose the mold top part having a channel for heating, but rather places the entire mold in an oven.(Col. 8, ll. 74-75) DeMoe et al. discloses a method of applying a cover to a foamable mixture in a mold wherein the mold is heated via heat lines extending through the top and bottom of the mold.(Pg. 2, ll. 1-2; Abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the mold of Ericson and Malfliet et al. using channels in the top and bottom of the mold since DeMoe et al. shows this is a known alternative in the art to using an oven(Pg. 2, ll. 1-2) and since this would reduce the amount of equipment and the amount of moving of the mold required and this is an obvious alternative to using an oven..

Regarding claim 7, Malfliet et al. discloses re-using the elastic skin, by removing it from the article and positioning it again in the mold.(Pg. 4, ll. 2-4)

Regarding claim 10, Ericson discloses the film can be polyvinyl chloride.(Col. 3, II. 44-45)

Regarding claim 12, Malfliet et al. discloses a paint film can be applied to the inside of the elastic skin after it is placed in the mold.(Pg. 8, II. 1-3)

Regarding claim 13, while Malfliet et al. does not disclose that different part of the elastic skin can be painted different colors, one in the art would appreciate that different regions could be painted different colors so the final article would have different colors in different locations.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ericson, Malfliet et al., and DeMoe et al. as applied to claim 1 above, and further in view of Jourquin et al.(U.S. Patent 5,662,996).

The references cited above do not disclose whether the foam is open or closed cell, but does indicate the foam is made of polyurethane and the article can be used as an instrument panel or trim component.(Col. 7, II. 13-15) Jourquin et al. discloses forming a dashboard or trim component having a skin and a polyurethane foam in a mold wherein the foam is an open-cell foam.(Abstract; Col. 1, II. 8-10; Col. 4, II. 22-23) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the foam of Ericson, Malfliet et al., and DeMoe et al. open cell since Jourquin et al. shows that articles made of similar materials in similar ways for similar end uses use an open cell foam.(Col. 4, II. 22-23)

Claims 1, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greene(U.S. Patent 5,938,993) in view of Malfliet et al., Ericson, and DeMoe et al.(WO 01/26883A1)

Greene discloses a method of forming a molded article by forming a silicone skin in a mold having the texture of the final described product, injecting a skin coating onto the silicone, hardening it to form a film, pouring foamable material into the mold, closing the mold, and back foaming the mold with the foam dimensions defined by the film and the top of the mold under heat.(Figures 3A-6B; Col. 7, ll. 52-57; Col. 8, ll. 11-24) Since the foam is a urethane foam mixture, it is considered to contain reactive foaming ingredients.(Col. 8, ll. 17-18) While the reference does not disclose the silicone layer as elastic, one in the art would appreciate that silicone materials are generally elastic. The reference does not disclose inserting the silicone skin into the mold, or how the article is removed from the mold. Malfliet et al. discloses a method of forming a molded body by inserting an elastic skin(6) having a graining(7) on the inside into a receiving mold bottom(2,3,4), the edges of which stabilize the elastic skin(Figure 1), applying a liquid polymer to the inside of the elastic skin which is hardened to form a molded skin(9), back foaming the mold by introducing a foamable mixture into the mold, removing the elastic skin(6), molded skin(9), and foamed body(12) from the mold as a unit attached to the tool top(Figure 11), and stripping the elastic skin from the molded skin so that graining remains on the molded skin.(Figure 7; Abstract; Pg. 4, ll. 2-4; Pg. 6, ll. 12-13, 26-Pg. 7, ll. 1, 8-11; Pg. 10, ll. 13-20) It would have been obvious to one of ordinary skill in the art at the time the invention was made to inserting the silicone skin and

Art Unit: 1733

remove it together with the skin coating and foamed mixture since this would allow reuse of the mold, since the shape of the article would make it difficult to remove without destroying the mold or also removing the silicone layer, and since Malfliet et al. discloses this is a known method of using molds with textured skins. (Figure 7; Abstract; Pg. 6, ll. 12-13, 26-Pg. 7, ll. 1, 8-11; Pg. 10, ll. 13-20)

The references cited above do not disclose closing the mold prior to inserting the foamable material. Ericson discloses closing a mold having a skin layer therein before injecting the foamable materials.(Figure 3) It would have been obvious to one of ordinary skill in the art at the time the invention was made to inject the foam after closing the mold as shown for example by Ericson(Figure 3) since this is a known alternative to closing the mold after injecting the foam and since this would insure the foam did not temporarily expand larger than the desired final shape, possibly causing problems when the reacting foam was re-compressed into the mold.

The references cited above do not disclose the mold top part having a channel for heating or any heating. DeMoe et al. discloses a method of applying a cover to a foamable mixture in a mold wherein the mold is heated via heat lines extending through the top and bottom of the mold.(Pg. 2, ll. 1-2; Abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the mold of Greene and Malfliet et al. using channels in the top and bottom of the mold since DeMoe et al. shows this is a known method in the art to heat a foamable mixture(Pg. 2, ll. 1-2) and since this would insure the foamable mixture heated and cured adequately.

Regarding claim 8, while Greene discloses the skin layer can be sprayed on, this is clearly only exemplary and other methods such as that of Malfliet et al., which discloses injecting or pouring the molded skin resin(Pg. 6, ll. 25-28). The mold space when the mold is closed is defined by the elastic skin(6) and the top tool part(12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to pour or inject the skin layer of Greene using a tool top part to delimit the shape of the skin layer since Malfliet et al. discloses this is a known alternative in the art for applying the skin layer to the interior of a mold.(Pg. 6, ll. 25-28)

Regarding claim 9, while Greene discloses the skin layer is dried, it does not disclose heating via a channel in the tool top part. However, the combination of Greene, Malfliet et al., and DeMoe et al. does contain a channel in the tool top part used for molding the foam. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a channel in the tool top part used to form the skin and to heat the skin using this channel since DeMoe et al. shows it is known to use channels to heat a mold and since this would dry the skin layer quickly.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greene, Malfliet et al. and DeMoe et al. as applied to claim 1 above, and further in view of Staneluis et al.(U.S. Patent 4,925,719).

Greene discloses the skin layer is polyurethane(Abstract) but does not disclose it is a curable polyurethane. Staneluis et al. discloses a method of making a polymeric article with a polyurethane skin and a polyurethane foamed core in a mold(130,132) wherein the skin layer is a thermoset polyurethane(Col. 1, ll. 12-15; Col. 2, ll. 25-26;

Art Unit: 1733

Col. 7, ll. 8-10) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the molded skin of Greene thermosetting since Staneluis et al. discloses that articles made with polyurethane skins and polyurethane foams cores in molds can have thermosetting skins.(Col. 1, ll. 12-15; Col. 2, ll. 25-26) Since the polymer can only be either single or multi component and either based on aliphatic or aromatic starters as there are no other alternatives, the reference is effectively considered to teach these limitations.

(10) Response to Argument

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an elastic skin with a grain pattern as in Malfliet et al. rather than give the film the pattern of the mold surface as taught by Ericson or Greene since this would prevent the mold seams from being present in the final product. (Pg. 2, ll. 24- Pg. 3, ll. 2) It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the mold of Ericson and Malfliet et al. using channels in the top and bottom of the mold since DeMoe et al. shows this is a known alternative in the art to using an

oven(Pg. 2, ll. 1-2) and since this would reduce the amount of equipment and the amount of moving of the mold required and this is an obvious alternative to using an oven.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding appellant's argument that there is no suggestion in any of the references that the method of Ericson was inadequate, patents in general do not teach the problems with their inventions. If a patent had to teach a problem with itself, very few 103(a) rejections would exist. The requirement for motivation does not require that the motivation include a reason the prior solution would not work or is less effective than the secondary reference. It only requires a motivation, i.e. a reason why one would use the process or apparatus of the secondary reference in the primary reference. Appellant has not suggested that the motivation was wrong, but rather has not even mentioned the motivation.

Regarding appellant's argument that using heating channels requires an enormous expenditure which is only justified if better heating can be achieved, since

Art Unit: 1733

one in the art would not know if better heating would be achieved before making the mold, appellant is appears to be suggesting that no one would ever use a heated mold since it is so expensive and rarely worth the cost. The act that something is expensive does not mean that one in the art would never think to use it.

Regarding appellant's argument that there is no suggestion in Greene to configure the silicone into a thin skin, the claim does not indicate any specifics as to the elastic skin. It does not require the skin to be thin. A skin is simply an outermost layer, which the silicone layer of Greene is since it is effectively the outermost layer of the mold. The reference describes 9 as a mold(Col. 8, ll. 7-8) so the silicone does cover a mold made of a different material.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

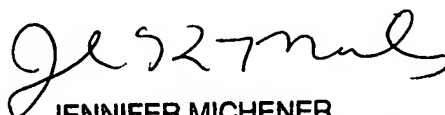
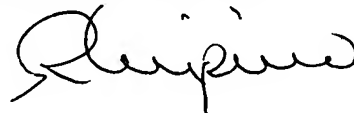
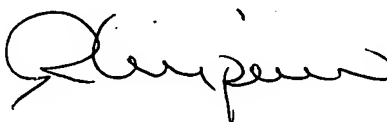
BJM



Conferees:

Jennifer Kolb Michener Michener

Richard Crispino


JENNIFER MICHENER
QUALITY ASSURANCE SPECIALIST
RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY